CONSUMER TIME

WHAT'S NEW IN FOOD

NETWORK: NBC

DATE: August 4, 1945

ORIGIN: WRC - WITH PICK-UP FROM WESTERN RESEARCH LABORATORY IN ALBANY, CALIFORNIA

TIME: 12:15-12:30 PM - EWT

(Produced by the United States Department of Agriculture, this script is for reference only and may not be broadcast without special permission. The title CONSUMER TIME is restricted to network broadcast of the program...presented for more than twelve years in the interest of consumers.)

-oOo-

1. SOUND: CASH REGISTER RINGS TWICE...MONEY IN TILL

2. JOHN: It's CONSUMER TIME!

3. SOUND: CASH REGISTER....CLOSE DRAWER.

4. ANNCR: During the next 15 minutes, the National Broadcasting Company and its affiliated independent stations make their facilities available as a public service to the U. S. Department of Agriculture for the presentation of CONSUMER TIME.

5. JOHN: Mrs. Freyman?

6. FREYMAN: Yes, Johnny...

7. JOHN: Mrs. Freyman, quiz time is here again.

8. FREYMAN: Oh, it is?

9. JOHN: Yes, and you're the quizee.

10. FREYMAN: Well, I don't know...

11. JOHN: Come, come now...here's your first question. Who did the research which made possible large-scale commercial manufacture of penicillin...the wonder drug which has saved so many lives on the battlefield and in our hospitals?

12. FREYMAN: You can't stop me on one like that. Penicillin, of course, was discovered in 1929 by Great Britain's Dr. Alexander Fleming. In 1941, British scientists brought the drug here to see if we could develop means of mass production. And it was done, largely by scientists of the Department of Agriculture...at the Northern Regional Research Laboratory, Peoria, Illinois...of the Bureau of Agricultural and Industrial Chemistry.

13. JOHN: Oh! So you know about the Department of Agriculture's regional research laboratories?

14. FREYMAN: Yes, I do. There are four of them.

15. JOHN: And where are they?

16. FREYMAN: Besides the one at Peoria, they are located at Philadelphia, New Orleans and Albany California.

17. JOHN: Fine, Mrs. Freyman! You know, then, that these four laboratories were established by an Act of Congress in 1938 to find ways and means to increase the industrial use of agricultural products.

18. FREYMAN: Yes, each laboratory has been assigned to conduct research on major agricultural commodities of its region.

19. JOHN: One of the things the Southern laboratory at New Orleans has done...

20. FREYMAN: ....was to develop a way to adopt lint cotton for use in making smokeless powder.

21. JOHN: And the Philadelphia laboratory...

22. FREYMAN: ....developed a bland sirup for table use from low-grade apples and to replace glycerine in conditioning cigarette tobacco...

23. JOHN: ...and each laboratory many other products as well. Now here's one more question. Where do you think you could learn the most about some of these new discoveries in agriculture?

ENGINEER: SWITCH TO ALBANY COMING AT 12:17 PM-EWT...CUE IS UNDERLINED.

24. FREYMAN: Why it seems to me that would be in one of the laboratories.

25. JOHN: Exactly right! We're going to do just that...right now! We're going out to Albany, California, for an on-the-spot broadcast from the Western Regional Research Laboratory.

ENGINEER: SWITCH CONTROLS TO ALBANY, CALIFORNIA

26. SCHACHT: This is Henry Schacht in Albany, California, speaking to you from the massive three-story building of the Western Regional Research Laboratory, where scientists of the Department of Agriculture's Bureau of Agricultural and Industrial Chemistry are hard at work developing new products from the West's agricultural commodities...for war and for peace. We're in the office of Dr. T. L. Swenson, Director of the Laboratory. Dr. Swenson, the laboratory here must cover almost a city block, doesn't it?

27. SWENSON: Just about, Mr. Schacht. Like the other three laboratories this one is built in a U-shape and has three stories and a basement.

28. SCHACHT: And many, many individual laboratories...

29. SWENSON: There are 97 altogether, plus a room for pilot plant operations and storage rooms. Each lab is well equipped for the particular type of research conducted there. Working here are chemists physicists, bacteriologists and engineers.

30. SCHACHT: How would you define the nature of your work here?

31. SWENSON: We're engaged here in research on the fundamental composition and structure of Western agricultural products. We're trying to find new uses for these products, new ways to process them or improvements in existing methods.

32. SCHACHT: Could you tell us specifically just what some of the developments here have been?

33. SWENSON: Well, for example, since the war began we've been working very closely with the Quartermaster Corps to develop foods and processing techniques for the Armed Forces. For the Quartermaster Corps, we've helped develop a canned jellied fruit dessert that was part of our research on pectin. This dessert contains a special type of pectin and will remain firm at tropical temperatures where ordinary gelatin will melt. We've also been able to chemically modify pectin, obtained from citrus fruit and apples, for use in an ointment base. Interest in pectin was stimulated when the war cut off our sources of water soluble gums.

34. SCHACHT: I see...

35. SWENSON: Another thing the war stopped was our imports of tartrates.

36. SCHACHT: Cream of tarter, I know, is an important chemical used in medicine and photography.

37. SWENSON: And making rayon, dyes and baking powder. We found a commercially feasible method to extract tartrates from grape wastes. A pilot plant was operated in 1943 at Lodi, California in cooperation with the tartrate industry.

38. SCHACHT: You're doing some research on artificial fibers, too, aren't you, Dr. Swenson?

39. SWENSON: We're working to produce an artificial fiber from chicken feathers and egg whites. The experimental fibers we have made are promising...with the structural characteristics of true fibers. We're now trying to develop them for special uses.

40. SCHACHT: Your work certainly covers a wide range...from jellied fruit cocktail to chicken feather fibers...

41. SWENSON: The biggest project has been our wartime research directed toward improving dehydration techniques.

42. SCHACHT: I know the military forces use lots of dehydrated foods.

43. SWENSON: Last year, the Armed Forces used 197 million pounds...but perhaps the best way to show you what we're doing is to visit the pilot plant room down the hall.

44. SCHACHT: Just what is a pilot plant, Dr. Swenson?

45. SWENSON: It's a plant for controlled experiements in processing on a semi-commercial scale. Here we are now. The room is large enough for several pilot plant operations.

46. SOUND: SOUNDS IN FOR 5 SECONDS AND DOWN BEHIND

47. SCHACHT: And a most impressive place it is, too. We're standing on a steel platform overlooking this very large room which reaches from the basement clear up to the top of the building. The floor contains a great many complicated looking machines... some of them very small and some rising the full height of the room. They all seem to have one thing in common...they bristle with dials and gauges, handles, pipes and cables. Abou thirty feet from the floor a band of shiny pipes runs clear around the room, as does a balcony on which still more machines are placed. The impression I get, however, is not one of confusion, but of scientifically controlled power and orderly experimentation. Dr. Swenson, what is this...this thing... here immediately to our right. It looks like a huge silver barrel, festooned with ladders and catwalks, with pipes and chutes going in and out?

48. SWENSON: (CHUCKLE) That's our experimental spray dryer, Mr. Schacht, in which we carry on experiments on spray-drying.

49. SCHACHT: You mean like reducing an egg or an orange to a tablespoonful of powder?

50. SWENSON: That's right. First, the food is converted to a liquid and then to a powder. Preliminary tests have indicated that fruit in this form can be preserved longer, retains its vitamins better and is very good for shipment overseas.

51. SCHACHT: Will you do any work on dried eggs in the spray dryer?

52. SWENSON: Yes, we will, and we have done some spray drying in that small plasma dryer you see down there at the far end of the room.

53. SCHACHT: Oh yes...I see it.

54. SWENSON: Extensive basic research on dried eggs...which are used very widely overseas...has been done here in this laboratory, to find means of extending the shelf life of dried eggs by preventing the development of objectionable odors, tastes and colors.

55. SCHACHT: You've done work on dehydrated vegetables here, too, haven't you?

56. SWENSON: Yes, we have. The need for dehydrated vegetables was so great at the beginning of the war that mass production was started almost at the same time as the research. We've been working right along on new techniques of dehydration and preparation for dehydration with the idea of making the results of our experimental work available to the industry as rapidly as possible. Down there on the floor we have, on a small scale of course, almost every kind of machine which is used in the dehydration process. The manuals for vegetable and fruit dehydration, used very widely by the industry, were written here from our research and that of others in the field.

57. SCHACHT: Over there on the right, about half way down the room, I see something which appears to consist of an endless chain about 12 feet long, with a sprocket at each end and spikes sticking up at intervals along the chain.

58. SWENSON: Ah! That's something of which we're very proud. It's an experimental mechanical onion peeler.

59. SCHACHT: How does it work?

60. SWENSON: The operator slices the tips off the ends of the onion and places it on a spike. It travels with the chain and passes under a steam jet which simply fluffs the skin right off it.

61. SCHACHT: That's very ingenious.

62. SWENSON: It's economical, too. Using that machine, one worker can do the work of several by hand. Peeling costs are reduced enormously.

63. SCHACHT: Is that some kind of a press I see down there on the right?

64. SWENSON: That's a filter press. It's used to take the juice out of fruits and vegetables. One thing we're experimenting on is the use of the juice of asparagus butts to make liquid on which the organisms that make antibiotics can be grown.

65. SCHACHT: What's an antibiotic?

66. SWENSON: An antibiotic is a germ-killer. We're getting encouraging results with one called tyrothricin.

67. SCHACHT: What happens to the asparagus butts after the juice is taken out?

68. SWENSON: Well, we found a way to make fiberboard out of them.

69. SCHACHT: Marvelous! Do my eyes deceive me or does that look like a kitchen mixer down there.

70. SWENSON: Very similar. That's used in some of our work on fruit purees. Velva Fruit is our outstanding development in this connection. SWITCH TO FROZEN FOOD ROOMS COMING UP...CUE IS UNDERLINED.

71. SCHACHT: I believe our man _________ is up in your freezer rooms now with Dr. Harold J. Loeffler to tell us about Velva Fruit. Let's go up and see what they're doing.

ENGINEER SWITCH TO FROZEN STORAGE ROOMS

72. ANNCR: This is ____________. It may be a warm summers day outside, but it's certainly cold up here in the frozen storage rooms. How cold is it, Dr. Loeffler?

73. LOEFFLER: It's ten below zero in here, Mr. _____________.

74. ANNCR: Brrrr! Around me, I can see many kinds of fruits and vegetables in different types of containers, all labeled and dated. Are those peaches I see over there.

75. LOEFFLER: That's right...frozen solid. Here, I'll drop one on the table.

76. SOUND: PEACH BEING DROPPED ON TABLE

77. ANNCR: Solid is right! It sounds and feels like a rock.

78. LOEFFLER: In here, we test the effects of frozen storage on various fruits and vegetables prepared and stored in different ways.

79. ANNCR: The frozen foods industry looks like it will have a big future after the war.

80. LOEFFLER: Yes, and it has a big present right now. The Army uses a great deal of frozen foods for troops here in this country. Many frozen food manufacturers send their people to the laboratory to learn some of the techniques we've developed through research.

81. ANNCR: What about this Velva Fruit?

82. LOEFFLER: We have some of it right over here, packed in these small paper cups.

83. ANNCR: Hmmm! It looks rather like ice cream.

84. LOEFFLER: Here's a spoon...go ahead and taste it.

85. ANNCR: (TASTES) Ah! Delicious! It tastes like a very smooth ice cream with a great deal of fresh fruit flavor. This is cherry isn't it?

86. LOEFFLER: Yes, It can be made with almost any fruit. Velva Fruit made from canteloupe is especially good.

87. ANNCR: Well, Dr. Loeffler, exactly how is Velva Fruit made?

88. LOEFFLER: Velva Fruit is a combinatiom of fully ripened fruit puree, sugar, a small amount of gelatin, and...for some fruits...a small amount of acid to enhance the flavor.

89. ANNCR: Doesn't it have any dairy products in it?

90. LOEFFLER: No, it doesn't. And it is also different from ices and sherberts in that Velva Fruit is about 60 percent fruit as comapred to 20 percent in ices and sherberts. It's color, and flavor are entirely natural. It retains nature's vitamin richness very satisfactorily, even if the puree is stored a long time.

91. ANNCR: Is it being made commercially?

92. LOEFFLER: Yes, it's being made commercially at the rate of about 75 thousand gallons a month. But more than that, it can be made at home, in an ordinary hand freezer, or the ice compartment of your refrigerator. If you'll step outside, I'll show you the machine we use.

93. ANNCR: That's a good idea. (SOUND...DOOR CLOSING) My hand feels like it's frozen to the microphone. I see Henry Schacht and Dr. Swenson have joined us.

94. LOEFFLER: Here's the machine we use...

95. SOUND: MOTOR ON AND RUNNING

96. LOEFFLER: (CONTINUED) By the way, the Department of Agriculture has a pamphlet out on how to make Velva Fruit at home.

97. ANNCR: Fine. We'll tell our listeners how to get it later in the program. Henry, suppose you take over while I thaw out.

98. SCHACHT: And eat the rest of your Velva Fruit.

99. SWENSON: We'll give you some too, Mr. Schacht. Velva Fruit, as we see it, has great possibilities for the use of fruit picked too ripe to stand shipment, because puree can be stored in frozen form for a long time.

100. SCHACHT: Dr. Swenson, isn't that an oven in the other room? And don't I see some delicious looking pies on the table?

101. SWENSON: You do. Pie, as you may know, Mr. Schacht, is the most popular American dessert. And we carry our work on the preservation of frozen pie fruit to the point of actually using it to bake pies and having the pies taste tested by members of our staff.

102. SCHACHT: Now, that's the kind of a job __________ here would like... eating pie and getting paid for it, too.

ENGINEER: SWITCH TO WASHINGTON, D. C. COMING UP...CUE IS UNDERLINED

103. SWENSON: That's only one small part of their activities, Mr. Schacht. Here at the Western Regional Research Laboratory, we're carrying on many, many different experiments. Some of them have reached the point where they are ready for commercial production. Some have failed. Many others are still in the developmental stage. But all of them are directed toward developing new processes and products to help the war effort, to find new ways to use the products of America's farms and to get this information into the hands of industry in the best form at the earliest possible dates.

104. SCHACHT: Thank, you Dr. Swenson and Dr. Loeffler. We return you now to Washington, D. C.

ENGINEER: SWITCH TO WASHINGTON, D. C. - 12:27 PM - EWT

105. JOHN: Mrs. Freyman...Mrs. Freyman...you're all right, aren't you?

106. FREYMAN: Of course, Johnny. I was just day dreaming, I guess.

107. JOHN: Day dreaming?

108. FREYMAN: Our visit to the laboratory today was like a trip into the future. I was just thinking of the first time I order powdered oranges from the grocer...

109. JOHN: (LAUGHS) And they're delivered to you in a fiber container made of chicken feathers.

110. FREYMAN: But Johnny, think of the jellied fruit salad.

111. JOHN: And the handy dehydrated vegetables.

112. FREYMAN: And Velva Fruit. Which reminds me, Dr. Loeffler, at the laboratory mentioned a booklet that tells how to make Velva Fruit. Do you have something to say on that subject, Holly Wright?

113. WRIGHT: Indeed I do, Mrs. Freyman. CONSUMER TIME friends, the Department of Agriculture has prepared a special folder entitled "Making Velva Fruit at Home", which tells how to make delicious Velva Fruit desserts right in your own kitchen. You can have this publication free of charge by writing to CONSUMER TIME, Washington 25, D. C. The Velva Fruit folder gives complete instructions for making berries, melons, grapes, peaches and other fruits into a tasty dessert as smooth as velvet. Write for your free copy today. Send your request to CONSUMER TIME, Washington 25, D. C. Be sure to include your name, address, and the name of the station to which you're listening.

114. FREYMAN: And now Johnny...about next week's CONSUMER TIME.

115. JOHN: Well, next week...I'm glad to say, we're going to be safe at home.

116. FREYMAN: Put emphasis on that word "safe", Johnny...because next week's show is about safety.

117. JOHN: That's right, Mrs. Freyman...a dramatic story of accident prevention upstairs, down stairs and in your own back yard.

118. FREYMAN: So play safe...and be sure to listen next week for another edition of...

119. SOUND: CASH REGISTER

120. ANNOUNCER: CONSUMER TIME!

121. SOUND: CASH REGISTER

122. JOHN: How your money buys a living in wartime!

123. SOUND: CASH REGISTER...CLOSE DRAWER.

124. ANNCR: CONSUMER TIME is presented by the U. S. Department of Agriculture through the facilities of the National Broadcasting Company and its affiliated independent stations. It comes to you from Washington, D. C. Script for today's program was written by Marge Weiss and Jim Keene. This broadcast period for CONSUMER TIME has been made available as a public service.

This is the National Broadcasting Company.